



**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference TY03003PCT	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/JP 03/08796	International filing date (day/month/year) 10.07.2003	Priority date (day/month/year) 31.07.2002
International Patent Classification (IPC) or both national classification and IPC E04B1/74		
Applicant TOYOTA JIDOSHA KABUSHIKI KAISHA		

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.  
  
☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  
  
 These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  10.07.2003	Date of completion of this report  17.01.2005
Name and mailing address of the international preliminary examining authority:   European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer  Modesto, C  Telephone No. +31 70 340-1055  

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International application No.

PCT/JP 03/08796

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-26 as originally filed

**Claims, Numbers**

1-12, 15 as originally filed

13 received on 28.12.2004 with letter of 28.12.2004

**Drawings, Sheets**

1/12-12/12 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is :

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	3-12
	No: Claims	1,2,13,14
Inventive step (IS)	Yes: Claims	
	No: Claims	1-14
Industrial applicability (IA)	Yes: Claims	1-14
	No: Claims	

2. Citations and explanations

**see separate sheet**

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**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement.**

1 Reference is made to the following documents:

D1: US-A-5 134 014

D2: JP 11 161282 A

D3: EP-A-0 341 652

D4: GB 2 175 248 A

2 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT. The document D1 discloses (the references in parentheses applying to this document):

a sound absorbing structure, comprising:

a flat support base (Figure 5, element 11);

a flat sound-absorbing material arranged parallel to the support base (Figure 5, element 14); and a corrugated partition plate interposed between the support base and the sound-absorbing material (Figure 5, element 12), the corrugated partition plate having upper antinode portions opposed to the sound-absorbing material and lower antinode portions opposed to the support base (Figure 5, element 12); wherein the lower antinode portions of the corrugated partition plate are at least partially separated from the support base (Figure 5, element 12).

2.1 It is noted that although in D1 there is an element between the corrugated partition plate and the support base, claim 1 is silent as to the existence of something in between the two aforementioned plates, it only claims that the two are at least partially separated.

3 Claim 3 appears to correspond closely to claim 1 differing in that at least a second partition plate is configured between the sound absorbing plate and the corrugated plate, partitioning the air into a plurality of "cells". D2 (as acknowledged by the applicant in the background art) discloses exactly a similar solution (see e.g. figures 16-18). Hence, although this solution appears to be novel over the cited prior art, it also appears to be not inventive in the sense of Article 33(3) PCT.

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- 4 The subject-matter of claim 13 is considered to be unclear (Article 6 PCT). Hence it appears to be difficult to establish an opinion regarding novelty and inventive step of the said claim. Moreover it would appear that claim 13 is drafted in such general terms that it would lack novelty over, e.g., the acoustic panel described in any of the documents D1 - D4. Hence, the subject-matter of claim 13 is also considered to be not new in the sense of Article 33(2) PCT.
- 5 The dependent claims do not appear to contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty or inventive step, see documents D1 - D4 and the corresponding passages cited in the search report.
- 6 It is further noted that although claims 1, 3 and 13 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought or in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.
- 7 The industrial applicability of the method and apparatus of claims 1 - 14 is considered to be evident.

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claim 3, wherein the corrugated partition plate includes wave patterns with different frequencies.

12. The sound-absorbing unit as claimed in claim 3, wherein the corrugated partition plate includes wave patterns with different amplitudes.

13 (amended). A sound-absorbing unit comprising:

10 a partition plate having a plurality of recesses formed in a first side thereof, each of said recesses having an opening with a predetermined shape on the first side; and

15 a sound-absorbing material provided on the first side of the partition plate to cover the openings of the recesses,

wherein each of the recesses has a cross-sectional area that gradually varies with a depth of the recess.

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14 (canceled).

15. The sound-absorbing unit as claimed in claims 3 or 13, wherein the thickness of air spaces behind the sound-absorbing material is set to odd multiples of one-fourth of the wavelength of sound waves of target frequencies..

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